



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,223	09/24/2004	Emilio Martin	056258-5072	5168
9629	7590	09/07/2005		
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			EXAMINER COSTALES, SHRUTI S	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/509,223

Applicant(s)

MARTIN ET AL.

Examiner

Shruti S. Costales

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/24/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement submitted on September 24, 2004 was filed in compliance with the provisions of 37 CFR § 1.97. Accordingly, the information disclosure statement filed by the applicant has been considered by the Examiner.

Specification

2. The abstract of the disclosure is objected to because the applicant makes improper use of legal phraseology, such as "comprising". See MPEP § 608.01(b).

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Art Unit: 1714

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

3. Claims 2-15 are objected to because said claims recite "An aqueous coating composition according to claim 1...", wherein the claims should properly refer back to claim 1 from which they all depend by reciting "The aqueous coating composition according to claim 1..."

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 appears to improperly recite a Markush group. Consequently, it is impossible to determine which elements of

Art Unit: 1714

the group are required by claim 4. When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if "wherein R is a material selected from the group consisting of A, B, C and D" is a proper limitation, then "wherein R is A, B, C or D" shall also be considered proper (emphasis added). See MPEP § 2173.05(h). It is suggested that the applicant replace "selected from the group comprising" to "selected from the group consisting of" and "and/or" should be replaced with "and" to comply with proper Markush claim format.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Buckmann et al. (U.S. Pre-Grant Publication Number 2004/0039089).

Buckmann discloses aqueous ambient temperature compositions which provide coatings having improved open and wet edge times as well as good tack-free times (Page 1, paragraph [0001]). It is further disclosed that this aqueous

Art Unit: 1714

coating composition includes a crosslinkable water-dispersible vinyl oligomer(s) wherein said composition when drying to form a coating has the following properties i) an open time of at least 20 minutes, ii) a wet-edge time of at least 10 minutes, iii) a tack-free time of ≤ 20 hours, iv) 0 to 25% of co-solvent by weight of the composition, and v) an equilibrium viscosity of $\leq 5,000$ Pa.s, at any solids content when drying in the range of from 20 to 55% by weight of the composition, using any shear rate in the range of from 9 ± 5 to 90 ± 5 s⁻¹ and at $23 \pm 2^\circ$ C (Page 2, paragraphs [0022]-[0027]). It is to be noted that Buckmann's cross-linkable vinyl oligomer(s) also includes non-crosslinkable oligomer(s) that are a non-vinyl type, including polyurethane, polyester, polyamide, polyether, polysiloxane, etc. (Page 6, paragraphs [0075]-[0076]). The aqueous coating composition also includes dispersed polymer(s) (Page 8, paragraph [0096]).

With respect to the amounts of each of the components present in the aqueous coating composition disclosed by Buckmann, it is disclosed that the crosslinkable vinyl oligomer(s) comprising the non-crosslinkable oligomer(s) may be present in an amount of up to 120 wt% (Page 6, paragraph [0075]). It is further disclosed that the coating composition includes 3 to 32.5 wt% of oligomer(s), 10 to 56 wt% of dispersed polymer(s), 0 to 15 wt% of co-solvent, and 5 to 65 wt% water, wherein the sum of all components is equal to 100% (Page 12, paragraphs [0141]-[0147]). The ratio of the non-crosslinkable oligomer(s) and the polymer(s) are calculated by the Examiner to be in the range of about 3:10 to 32.5:56.

Art Unit: 1714

The aqueous composition has an equilibrium viscosity $\leq 5,000$ Pa.s when measured using any shear rate in the range of from 0.09 ± 0.005 to 90 ± 5 s⁻¹, and an equilibrium viscosity of $\leq 3,000$ Pa.s when measured using any shear rate in the range of from 0.9 ± 0.05 to 90 ± 5 s⁻¹, and an equilibrium viscosity of $\leq 1,500$ Pa.s when measured using any shear rate of from 9 ± 0.5 to 90 ± 5 s⁻¹, at any solids content when drying in the range of from 20 to 55% by weight of the composition and at $23 \pm 2^\circ$ C (Page 3, paragraph [0043]).

The non-crosslinkable oligomer(s) of Buckmann have a polydispersity index (PDI) of less than or equal to 15 (Pages 6-7, paragraph [0074]). The glass transition temperature of the oligomer(s) is in the range of from -90 to 120° C (Page 7, paragraph [0085]). The molecular weight of the oligomer(s) is 1,000 to 80,000 Daltons (Page 5, paragraph [0070]). The oligomer(s) has a solution viscosity ≤ 150 Pa.s, as determined from a 80% by weight solids solution of oligomer(s) in at least one of the solvents selected from the group consisting of N-methylpyrrolidone, n-butylglycol and mixtures thereof, using a shear rate of 90 ± 5 s⁻¹ and at $50 \pm 2^\circ$ C (Page 3, paragraph [0049]). Buckmann further discloses that the solution viscosity of the oligomer(s) may be measured at $23 \pm 2^\circ$ C, and the oligomer(s) may thus also be described as preferably having a solution viscosity ≤ 250 Pa.s, as determined from a 70% by weight solids solution of the oligomer(s) in a solvent mixture consisting of i) at least one of the solvents selected from the group consisting of N-methylpyrrolidone, n-butylglycol and mixtures thereof, water, and iii) N,N-dimethylethanolamine, where i), ii) and iii)

Art Unit: 1714

are in weight ratios of 20/7/3 respectively, using a shear rate of $90 \pm 5 \text{ s}^{-1}$ and at $23 \pm 2^\circ \text{ C}$ (Pages 3-4, paragraphs [0051]-[0058]).

It is further disclosed by Buckmann that the composition includes polymer(s) dispersed therein including vinyl polymer(s) (Page 8, paragraph [0096] and Page 10, paragraph [0115]). These polymer(s) have a molecular weight of greater than or equal to 90,000 and when the molecular weight is less than 90,000, the solution viscosity of the dispersed polymer(s) is $> 150 \text{ Pa.s}$ as determined from a 80% weight solids solution of the dispersed polymer(s) in at least one of the solvents selected from the group consisting of N-methylpyrrolidone, n-butyl glycol and mixtures thereof using a shear rate of $90 \pm 5 \text{ s}^{-1}$ and at $50 \pm 5 \text{ s}^{-1}$ (Pages 8-9, paragraph [0096]). The average particle size of the dispersed polymer(s) is from 25 to 1000 nm (Page 9, paragraph [0105]). The glass transition temperature of the dispersed polymer(s) is in the range of from -50 to 300° C (Page 9, paragraph [0104]). The acid value of the dispersed polymer(s) is below 60 KOH/g (Page 9, paragraphs [0108]-[0109]). The aqueous coating composition of Buckmann may contain conventional ingredients, such as pigments, dyes, etc. (Page 13, paragraph [0155]).

In light of the above discussion, it is clear that the presently cited claims are anticipated.

Conclusion

8. Although U.S. Patent 6,303,189 has been cited on the international search report for PCT/GB03/01215, of which the present application is a national stage

Art Unit: 1714

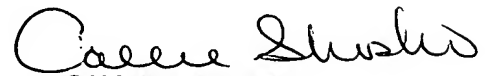
entry of, as an "X" reference, said reference has not been used to formulate a prior art rejection because such a rejection would be cumulative to that set forth above.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shruti S. Costales whose telephone number is (571) 272-8389. The examiner can normally be reached on Monday - Friday, 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

SSC
Shruti S. Costales
September 2, 2005


CALLIE E. SHOSHO
PRIMARY EXAMINER